

Using Percents

Finding a % of a

- Change the % to a fraction or decimal, then multiply by the #.

Find 30% of 50.

$$\frac{30}{100} \times \frac{50}{1}$$

$$\frac{30}{\cancel{100}_2} \times \frac{\cancel{50}^1}{1} = \frac{30}{2} = 15$$

Find 60% of 35.

$$0.6 \times 35$$
$$21$$

Finding a Discount

- Find the discount by multiplying % by #
- Subtract discount from original price.

\$ 30 backpack on sale for 20% off
What is sale price?

$$20\% \text{ of } 30 = 0.2 \times 30 = \$6$$

$$\overset{or}{\frac{1}{5}} \times \frac{30}{1} = \$6$$

$$\begin{array}{r} \therefore 30 \text{ original price} \\ - 6 \text{ discount} \\ \hline \$24 \text{ sale price} \end{array}$$

- Finding Sales tax

- Find sales tax by multiplying % by Cost.
- Add tax to Cost.

Fishing pole is \$24 with 5% sales tax.
What is total cost?

$$\begin{array}{r} 5\% \times 24 = 0.05 \times 24 = \$1.20 \quad \text{tax} \\ + 24.00 \quad \text{Cost} \\ \hline \$25.20 \quad \text{total} \end{array}$$

Simple Interest

interest - amount paid for use of money

principal - amount you save or borrow

annual interest rate - % of principal you

earn or save per year

simple interest - interest paid only on the principal

$$\text{Simple Interest} = \text{Principal} \times \frac{\text{annual interest rate}}{\text{rate}} \times \text{time (years)}$$

$$I = PRT$$

You deposit \$120 in bank. The annual interest rate is 3.5%. How much interest will you earn in 1 year? In 4 years?

$$I = PRT$$

$$\begin{aligned} I &= (120)(0.035)(1) \\ &= \$4.20 \end{aligned}$$

$$I = PRT$$

$$\begin{aligned} I &= (120)(0.035)(4) \\ &= \$16.80 \end{aligned}$$